

6552

6552

Form 504
Rev. April 1935
DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

DESCRIPTIVE REPORT

~~Topographic~~
Hydrographic } Sheet No. 6552

U. S. COAST & GEODETIC SURVEY
LIBRARY AND ARCHIVES
OCT 10 1941
Acc. No.

State Louisiana, Mississippi, Alabama

LOCALITY
Gulf of Mexico

East of Mississippi River Delta

1940
CHIEF OF PARTY
G. C. Mattison

U. S. GOVERNMENT PRINTING OFFICE

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY

REG. NO.

HYDROGRAPHIC TITLE SHEET

The Hydrographic Sheet should be accompanied by this form, filled in as completely as possible, when the sheet is forwarded to the Office.

Field No. 43

REGISTER NO. 6552

State Louisiana, Mississippi, Alabama

General locality Gulf of Mexico

Locality East of Mississippi River Delta

Scale 1 : 40000 Date of survey March, April
October, November, 1940

Vessel HYDROGRAPHER

Chief of Party G. C. Mattison
W.M. Scaife, E.R. McCarthy, P.L. Bernstein,

Surveyed by E.C. Baum, G.C. Mast, P.A. Weber

Protracted by A. J. Compagna

Soundings penciled by W. W. Feazel

Soundings in ~~fathoms~~ feet

Plane of reference MLW

Subdivision of wire dragged areas by

Inked by P.H. Andros

Verified by P.H. Andros

Instructions dated Supplemental June 24
July 1, 1939

Remarks:

XVW 3/22/43

DESCRIPTIVE REPORT

To Accompany

HYDROGRAPHIC SHEET NO. H-6552

(Field No. 43)

U.S.C.&G.S.S. HYDROGRAPHER

G. C. MATTISON, COMMANDING

PROJECT HT-236

1940

AUTHORITY:

This survey was executed in compliance with the Director's Instructions dated June 24, 1939 and Supplemental Instructions dated July 1, 1939. ✓

LIMITS:

This sheet lies south of Mississippi Sound and east of the Chandeleur Islands extending from Latitude $29^{\circ} 26'$ to Latitude $30^{\circ} 05'$ and from Longitude $88^{\circ} 14'$ to Longitude $88^{\circ} 41'$. ✓
Soundings vary from 49 feet to 160 feet.

CONTROL:

Control for this sheet was furnished by two north-south lines of hydrographic buoys connected at their southern ends by another string. These buoys were located by taut wire and sun azimuths traverses. The position of the inshore buoy of ✓

each string (these buoys do not fall on the sheet) were fixed by sextant angles on shore objects.

METHODS:

The majority of the sounding lines on this sheet were controlled by sextant fixes on the hydrographic buoys. Some R.A.R. was done using sonic buoys attached to hydrographic buoys in the taut wire strings. In addition, bombs were fired for velocity tests at several sextant fixed positions.

Soundings were taken with a Dorsey III fathometer using the 20 fathom and 100 fathom dials. The 1000 fathom dial was used only to check other readings.

The gyro compass was used for steering and for bearings. The correction was determined by frequent bearings on shore objects in range and by amplitudes.

Log readings were used merely as checks against time because the log rating was variable.

RECORDS:

Soundings were corrected for tides and the usual fathometer corrections where the reducer or correction amounted to over one percent.

For the R.A.R. work an abstract of R.A.R. and dead reckoning was kept independently of the sounding records and bomb records. The abstract was used for plotting R.A.R. positions; the sounding volumes were used for pencilling the soundings.

The sextant fix work was plotted from the sounding records by standard methods.

The bombs fired for velocity tests were listed in addition to the angles of the sextant fixes. An analysis of the results of these tests accompany this report.

COMPARISON WITH PREVIOUS SURVEYS:

This sheet compares favorably with the charts of this vicinity when the different units of depth are taken into consideration.

Comparison with H-4223⁽¹⁹²²⁾: The present survey overlaps H-4223 on the former's southwest corner. The agreement is generally satisfactory with the recent soundings being 2 to 3 feet shoaler where there are disagreements. However, in Latitude 29° 38.1', Longitude 88° 35.2' there is a 60 ft. spot on H-4223 that is not covered by soundings of H-6552⁽¹⁹⁴⁰⁾. To the south of this spot the present survey shows a sounding of 6⁴ feet which may be indicative of a possible lesser depth in the vicinity.

64' adequate
for charting
60' not carried
forward

Comparison with H-4212⁽¹⁹²¹⁻²²⁾: The agreement between the sheets is satisfactory in the north section but large discrepancies were noted where the soundings on H-6552⁽¹⁹⁴⁰⁾ fall on those obtained on dead reckoning lines of H-4212. The 20 fathom depth curves of the sheets failed to agree. The following discrepancies were noted:

1. Latitude $29^{\circ} 34.7'$, Longitude $88^{\circ} 34.0'$: On
 H-4212⁽¹⁹²¹⁻²²⁾ a sounding of 92 feet and several other soundings
 to the eastward to the end of the line fall between
 lines on H-6552⁽¹⁹⁴⁰⁾ that show greater depths by about 20 feet.
 Since the depth locations do not coincide no recommend-
 ations are made.

2. Latitude $29^{\circ} 37.5'$, Longitude $88^{\circ} 36.0'$: Start-
 ing at this location and running east on a line on H-4212
 there is a close agreement at the beginning but a wide
 divergence from the soundings of the present survey to
 the eastward. This discrepancy is in excess of 10 feet
 in places with the soundings of H-4212 being the shoaler.
 Despite their being deeper the soundings of the present
 survey should be retained because of the better control
 on H-6552.⁽¹⁹⁴⁰⁾

*Dead reckoning
 lines from which
 these soundings
 were taken are
 probably out of
 position and
 should be disregarded*

3. Latitude $29^{\circ} 41.5'$, Longitude $88^{\circ} 34.0'$: Start-
 ing at this location and running east on a line on H-4212
 there are close agreements at the beginning and again
 where the line runs through the east limit of H-6552.
 In between, though, discrepancies of as much as 15 feet
 occur; the majority of the differences are from 3 to
 4 feet. It is recommended that the soundings of the
 present survey, though deeper, be retained because the
 lines are better controlled.

JUNCTIONS:

A junction is made with Sheet No. ^{Field H-6688 (1941)} 4241 on the east, but, ^{Junction is} satisfactory
 as this sheet is 1941 work, no comparison can be made.

~~H-6548 (Field No. 162) laps all but the northerly third~~ ⁽¹⁹⁴⁰⁾ ~~of this sheet but can not be used for comparison until smooth~~ ^{Statement in}
~~plotted.~~ ^{error}

A junction is made with H-6551 ⁽¹⁹⁴⁰⁾ (Field No. 42) on the southwest. The agreement in soundings is absolute, no discrepancies having been noted.

A junction is made with H-6550 ⁽¹⁹⁴⁰⁾ (Field No. 82) on the south; the agreement at the junction is satisfactory.

CROSSINGS AND DISCREPANCIES:

All the crossings are satisfactory; there are no discrepancies that exceed 2 feet.

GENERAL:

The few R.A.R. bomb arcs on this sheet were plotted using a fixed velocity of 1531 meters per second.

The draftsmen who plotted the positions and pencilled the soundings found no difficulty in executing their tasks. The results show a good comprehensive survey of the area that should supersede previous surveys.

STATISTICS:

Statute miles of sounding lines.....1103.6
Number of soundings.....11595
Number of positions.....1144
Area in square statute miles.....593

Respectfully submitted,

William F. Deane

William F. Deane,
Lieut. (jg) C.&G. Survey

Approved and forwarded:

W. M. Scaife
W. M. Scaife,
Chief of Party.

FATHOMETER CORRECTIONS:

T & S Corr'n Ft.	January-April, 1940 Fm. Ft.	October, 1940 Fm. Ft.
Plus 0.1	11-0	
0.2	15-0	
0.3	18-2	
0.4	20-0	
0.5	35-0	5-4
0.6		6-3
0.7		7-1
0.8		8-0
0.9	LESS	8-4
1.0		9-2
1.1	THAN	10-0
1.2		10-4
1.3	ONE	11-2
1.4		12-1
1.5	PERCENT	13-0
1.6		13-4
1.7		14-2
1.8		15-0
1.9		15-4
2.0		16-4
2.1		17-2
2.2		18-2
2.3		19-1
2.4		20-0
2.5		23-0
3.0		28-0
3.5		34-0

VALUES FOR SETTLEMENT
Ft.

Plus 0.8 (full speed)	120 RPM
0.6	100
0.4	80
0.2	60
0.0	40 RPM

IDS CORRECTIONS: GYRO CORRECTIONS:

DATE	DAY	I Ft.	D Ft.	S Ft.	IDS Ft.	GYRO CORR'N
Mar. 12	A	-1.9	+0.1	+0.8	-1.0	-1.5
28	B	"	+0.7	"	-0.4	-1.5
29	C	"	+0.6	"	-0.5	-1.5
30	D	"	+0.6	"	-0.5	-1.5
31	E	"	+0.5	"	-0.6	-1.5
Apr. 1	F	"	+0.5	"	-0.6	-1.5
2	G	"	+0.5	"	-0.6	-1.0
3	H	"	+0.4	"	-0.7	-1.0
10	J	"	+0.6	"	-0.5	-1.0
Oct. 13	K	-2.8	-0.8	+0.8	-2.8	+0.7
14	L	"	-0.9	"	-2.9	+0.7
21	M	"	-0.2	"	-2.2	+0.7
25	N	"	-0.5	"	-2.5	-0.3
26	P	"	-0.6	"	-2.6	-0.3
27	Q	"	-0.6	"	-2.6	-0.3
Nov. 8	R	"	-0.5	"	-2.5	-0.3

ANALYSIS OF VELOCITY TESTS: (ABSTRACTED)

POS. NO.	SCALED DISTANCE TO BUOYS					RAR DISTANCE IN SECS.					REMARKS
	JAY	LUE	NOT	POP	-S.S.	JAY	LUE	NOT	POP	SAL	
36N	28808	15720	4256	8812	---	19.07	10.42	2.84	5.77	---	Good
37N	27040	14000	3332	10496	---	17.81	9.21	2.22	6.90	---	Good
38N	24496	11512	3508	12972	---	16.10	7.61	2.33	8.49	---	Good
39N	22020	9124	5136	15440	---	14.51	6.07	3.39	10.10	---	Good
40N	19560	6888	---	17896	---	12.85	4.57	---	11.72	---	Good
41N	---	4860	9656	20432	---	---	3.23	6.40	13.39	---	Good
42N	14596	3480	12060	22936	---	9.68	2.36	7.94	15.04	---	Good
43N	12116	3620	14500	25440	---	7.95	2.39	9.55	16.65	---	Good
44N	9624	5232	17012	---	---	6.36	3.43	11.17	---	---	Good
45N	---	7360	19480	---	---	---	4.81	12.82	---	---	Good
46N	5140	9672	21960	---	---	3.40	6.34	14.48	---	---	Good
47N	3852	11432	---	---	---	2.52	7.49	---	---	---	Good
50N	1936	11800	24320	---	---	1.18	7.72	16.02	---	---	Good
51N	3176	10820	23280	---	---	1.98	7.15	15.35	---	---	Good
52N	4788	8968	21428	32504	---	3.11	5.95	14.11	21.33	---	Good
53N	7184	6504	18904	29980	---	4.33	4.66	12.51	19.71	---	Good
54N	9628	4120	16388	27460	---	6.26	2.77	10.88	18.06	---	Good
55N	12180	2000	13816	24880	---	7.88	1.47	9.29	16.48	---	Good
56N	14560	2108	11424	22508	---	9.49	1.43	7.58	14.78	---	Good
57N	17016	4096	9016	20040	---	11.10	2.70	6.01	13.19	---	Good
59N	21900	8772	4268	15160	---	14.34	5.77	2.90	9.93	---	Good
60N	24428	11276	2192	12644	---	15.98	7.43	1.54	8.33	---	Good
63N	29692	16512	4272	7484	---	19.43	10.93	2.86	4.95	---	Good
64N	32240	---	6656	5072	---	21.08	---	4.40	3.33	---	Good
65N	34812	21620	9168	2816	---	22.76	12.16	6.02	1.90	---	" Lue weak
66N	---	---	11640	1892	---	---	---	7.66	1.28	---	Good
67N	---	---	14132	3388	---	---	---	9.28	2.24	---	Good
73N	---	---	19472	8496	2204	---	---	12.76	5.53	1.36	Good
74N	44000	---	18504	8068	4700	28.82	---	12.17	5.37	3.02	" Pop poor
77N	39244	---	14136	5704	9084	25.68	---	9.31	3.74	5.95	Good
79N	36336	---	11536	5600	---	23.76	---	7.60	3.66	---	Good
80N	34496	---	9908	6184	13380	22.54	---	6.55	4.00	8.74	Good
81N	32708	---	8400	7136	15012	21.40	---	5.57	4.66	9.80	Good
82N	30260	---	6608	8840	17296	19.83	---	4.43	5.71	11.26	Good
83N	27884	15080	5348	10800	19552	18.25	9.99	3.62	7.01	12.74	Good
84N	25548	12876	5176	---	21856	16.78	8.42	3.53	---	14.25	Good
85N	23280	10840	6148	15188	24188	15.21	7.15	4.11	9.91	15.80	Good
86N	20936	8800	---	17472	26560	13.69	5.87	---	11.47	17.40	Good
91N	---	5984	---	26508	35720	---	3.95	---	17.42	23.41	Good
92N	10120	7260	---	---	38160	6.58	4.76	---	---	24.96	Good
93N	7884	9164	---	31548	41208	5.11	5.97	---	20.65	26.64	Good
94N	6172	11056	---	---	43504	4.05	7.30	---	---	28.75	Good
95N	5308	13312	---	---	---	3.43	8.77	---	---	---	Weak
96N	5488	15656	---	---	---	3.44	---	---	---	---	Poor
97N	3932	---	---	---	---	2.54	---	---	---	---	Good
98N	1932	14040	---	---	---	0.93	9.19	---	---	---	Poor

LIST OF SIGNALS USED ON THIS SHEET

HYDROGRAPHIC BUOYS

Bet...	Taut	wire	traverse	#2	Lit...	Taut	wire	traverse	#2
Cut...	"	"	"	"	*Lue...	"	"	"	#4
Dig...	"	"	"	"	Map...	"	"	"	"
Ego...	"	"	"	"	Mop...	"	"	"	#2
Fat...	"	"	"	"	Ned...	"	"	"	"
Git...	"	"	"	"	*Not...	"	"	"	#4
Gob...	"	"	"	#2B	Opa...	"	"	"	#2
Ham...	"	"	"	#2	Osa...	"	"	"	#4
Han...	"	"	"	#4	*Pop...	"	"	"	"
Hot...	"	"	"	#2B	Rap...	"	"	"	"
Ida...	"	"	"	#4	*Sal...	"	"	"	#4
Ide...	"	"	"	#2	Tax...	"	"	"	"
*Jay...	"	"	"	#4	Wed...	"	"	"	#2B
Jim...	"	"	"	#2	Yap...	"	"	"	"
Kat...	"	"	"	"	Zat...	"	"	"	"
Kid...	"	"	"	#4					

*Sonic buoys attached

Surveys Section (Chart Division)

HYDROGRAPHIC SURVEY NO. **H6552**

Records accompanying survey:

Boat sheets ~~one~~; sounding vols. ⁽⁶⁾....; wire drag vols.;
 bomb vols. ⁽¹⁾...; graphic recorder rolls;
 special reports, etc. (R.A.R. and Dead reckoning abstract filed
 in rear of descriptive report) *Filed in sdg record #1*

The following statistics will be submitted with the cartographer's report on the sheet:

Number of positions on sheet	<i>1144.</i>
Number of positions checked	<i>..7..</i>
Number of positions revised	<i>..2..</i>
Number of soundings recorded	<i>11,585</i>
Number of soundings revised (refers to depth only)	<i>..70.</i>
Number of soundings erroneously spaced	<i>..24.</i>
Number of signals erroneously plotted or transferred	<i>..0..</i>
Topographic details	Time <i>..0..</i>
Junctions	Time <i>..8..</i>
Verification of soundings from graphic record	Time <i>..0..</i>

Verification by *P. H. Andreas*.... Total time *10.9 hrs* Date *8/12/43.*

Review by *R. H. Carstens*.... Time *2 1/2* Date *8/17/43.*

Remarks

Decisions

1		
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5	Location of tide staff	
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25		
26		
27		
234		

GEOGRAPHIC NAMES
Survey No. **H6552**

GEOGRAPHIC NAMES											
Survey No. H6552											
Name on Survey											
		A.	B.	C.	D.	E.	F.	G.	H.	K.	
Gulf of Mexico											1
Mississippi River Delta											2
											3
											4
Port Eads, La											5
Fort Morgan, Ala											6
Fort McRee, Fla											7
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											27

Names underlined in red approved

by L. Heck on 6/18/72

M 234

Names underlined in red approved
by L. Heck on 6/18/42

NOTE BY CHIEF OF PARTY

SHEET NO. 6552

Regarding the shoaler depths on this survey as compared with the previous surveys, and as mentioned in this report under "Comparison With Previous Surveys", there has apparently been a general shoaling of the area in question due to discharge of sediment by the Mississippi River.


W.M. Sealife,
Chief of Party

MEMORANDUM

IMMEDIATE ATTENTION

SURVEY
DESCRIPTIVE REPORT
~~PHOTOSTAT OF~~
~~ENCLOSURE~~

No. H H6552

~~No. F~~

{ received Oct. 10, 1941
registered Oct. 13, 1941
verified
reviewed
approved

This is forwarded in order that your attention may be directed to the matters as indicated below. Please initial in column 3 as an acknowledgement that your attention has been thus directed. The complete original records are available if desired. If you cannot give this your immediate attention, please initial, note, and forward to the next section marked, calling for the records at your convenience.

ROUTE		Initial	Attention called to
20			
22			
24			
25			
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30			
40			
62			
63			
82			
83			
88			
90			

RETURN TO

82	R. W. Knox
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AKC

DIVISION OF CHARTS

REVIEW SECTION - SURVEYS BRANCH

REVIEW OF HYDROGRAPHIC SURVEY

REGISTRY NO. 6552

Field No. 43

Louisiana - Mississippi; Gulf of Mexico,
East of Mississippi River Delta
Surveyed March - November 1940; Scale 1:40,000
Instructions dated June 24 and July 1, 1939

Soundings:

Dorsey Fathometer

Control:

Three-point fix on buoy signals
R. A. R.

Chief of Party - G. C. Mattison
Surveyed by - Ship's Officers
Protracted by - A. J. Compagna
Soundings plotted by - W. W. Feazel
Verified and inked by - P. H. Andros
Reviewed by - R. H. Carstens
Inspected by - H. R. Edmonston, August 18, 1943

1. Shoreline and Signals

No shoreline is shown on this offshore survey. The signals are hydrographic and sono-radio buoys located by sun-azimuth taut-wire measurements.

2. Sounding Line Crossings

Excellent.

3. Depth Curves

Satisfactory.

4. Junctions with Contemporary Surveys

The junction with H-6688 (1941) on the east is satisfactory. Junctions with H-6550 (1940) and H-6551 (1940) on the south will be considered in the reviews of those surveys. Satisfactory junctions were to have been made with H-4171 (1920) on the north, H-4212 (1922) and H-4223 (1922) on the west. In numerous places on the north and west limits of the survey present depths are 2-5 feet shoaler than prior depths. This discrepancy is probably caused by the difference in the method of sounding.

Junctions with these prior surveys have been omitted in order to permit junctions with surveys which may be made subsequently.

5. Comparison with Prior Surveys

- a. H- 327 (1852) 1: 20,000
- H- 420 (1854) 1:600,000
- H- 430 (1854) 1: 20,000
- H- 599 (1857-58) 1:1,200,000
- H-1654 (1885-86) 1: 80,000

Agreement within the limited overlap of the large scale surveys is good. There are differences of as much as 20 feet with depths of the small scale reconnaissance surveys. The 12-fm. sounding in Lat. $29^{\circ}41.5'$; Long. $88^{\circ}33.0'$ and the 12-fm. sounding in Lat. $29^{\circ}57.8'$; Long. $88^{\circ}29.0'$, chart 1115, from these surveys differ with present depths by about 20 feet and should be disregarded. The present survey is adequate to supersede these earlier surveys within the common area.

- b. H-4171 (1920) 1:80,000
- H-4212 (1922) 1:80,000
- H-4223 (1922) 1:80,000

Depth agreement with these prior surveys is in general very good. On lines adequately controlled by sextant fixes depths agree within 2-5 feet. A number of lines controlled by dead reckoning are apparently out of position and depths from these lines differ with present depths by as much as 15 feet.

The 15-fm. sounding in Lat. $29^{\circ}37.5'$; Long. $88^{\circ}32.5'$; the 18-fm. sounding in Lat. $29^{\circ}37.5'$; Long. $88^{\circ}30.4'$ and the 15-fm. sounding in Lat. $29^{\circ}34.5'$; Long. $88^{\circ}34.0'$, chart 1115, are from such dead reckoning lines and should be disregarded. The present survey reveals all the necessary hydrographic information and should supersede these prior surveys within the common area.

6. Comparison with Chart 1115 (Latest print date 7-7-43)

a. Hydrography

The hydrography charted within the limits of the present survey originates with the previously discussed surveys which need no further consideration.

b. Aids to Navigation

There are no aids to navigation within the limits of the present survey.

7. Condition of Survey

Satisfactory.

8. Compliance with Instructions for the Project

Satisfactory.

9. Additional Field Work Recommended

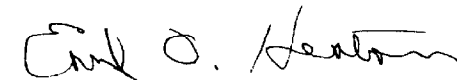
None on this survey. In view of the disagreement of junctions with the 1920 and 1922 work it would be desirable to extend basic fathometer surveys inshore to the northward and westward at some convenient time.


10. Superseded Surveys


H- 327 (1852)	in part
H- 420 (1854)	" "
H- 430 (1854)	" "
H- 599 (1857-58)	" "
H-1654 (1885-86)	" "
H-4171 (1920)	" "
H-4212 (1922)	" "
H-4223 (1922)	" "

Examined and approved:


Chief, Surveys Branch


Chief, Section of Hydrography


Chief, Division of Charts


Chief, Division of
Coastal Surveys

LAC
HAC

TIDE NOTE FOR HYDROGRAPHIC SHEET

October 22, 1941.

~~Division of Hydrography and Topography:~~

✓ Division of Charts: Attention: Mr. H. R. Edmonston

Plane of reference approved in
6 volumes of sounding records for

HYDROGRAPHIC SHEET 6552

Locality East of Mississippi River Delta, Gulf of Mexico.

Chief of Party: G. C. Mattison in 1940
Plane of reference is mean low water reading
5.3 ft. on tide staff at Port Eads
3.6 ft. below B. M. 1
3.8 ft. on tide staff at Fort McRee
3.6 ft. below B.M. 1
2.4 ft. on tide staff at Fort Morgan
5.4 ft. below B.M. 1

Height of mean high water above plane of reference is 1.3 ft.
at Port Eads; 1.1 ft. at Fort McRee; 1.1 ft. at Fort Morgan.

Condition of records satisfactory except as noted below:



Acting Chief, Division of Tides and Currents.

Applied to chart 1115 (after review.) D.A.M. 5/4/44.
Partially applied to chart 1267 (" ") W.A.B. 9/16/44
Applied to chart 1267 " " ~~W.A.B.~~ 2-13-45
Applied to new chart 11366 John Pierce 10-30-91